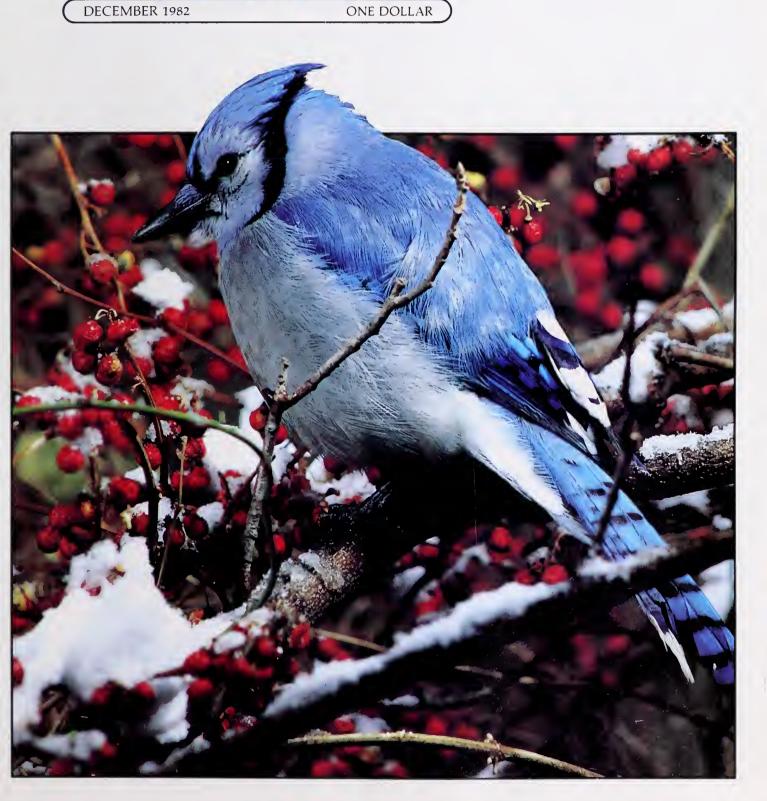
TIRGINIA WILDLIFE





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Features

- 4 Taking Wing by Steve Ausband
 A boy's first duck hunt is part of a cycle of tradition
- 6 Washing Away the Resource by Terry N. Grimes Soil erosion is a serious problem; what can you do to curb it?
- 9 Brookies Versus Nature by Arthur L. LaRoche III Your biggest competitor for native trout may not be another angler
- 12 The Mythical Kissing Plant by Jack Randolph Mistletoe
- 14 A Matter of Survival by Dinny Slaughter Taking the time to put together an "exposure kit" will pay off
- 16 Dreamin' of a White Christmas by Pat Cooley Will you have one this year?
- 24 Non-Game Update by Susan Gilley The Delmarva Fox Squirrel
- 26 Follow An Icy Hollow by Bob Belton and Catharine Tucker You can sit by the fire, or you can get out and explore
- 32 Bird of the Month by Carl "Spike" Knuth Dark-Eyed Junco
- 34 The River Otter by Karen Anderson This playful mammal is a champion swimmer
- 35 Index to Virginia Wildlife Volume 43, Numbers 1-12

Departments

- 3 Letters
- 21 Field Notes Do You Brake for Wildlife?
- 22 Growing Up Outdoors Christmas Trees
- 23 Personalities David Ramsey
- 29 Outdoor Notebook Cataloging the catalogs, and more

Cover

Blue jay by Steve Maslowski, Cincinnati, Ohio. Back cover photo of holly by Pat Cooley, Lancaster.

Letters

Letter of Protest

This is to protest in the strongest possible terms the announcement that Secretary James B. Watt will be the speaker at the Virginia Wildlife Federation banquet October 16. For shame!

His name is anathema to every lover of wildlife, every conservationist, everyone who has fought to preserve our national parks and forests, our wilderness areas, our national heritage.

I shall not renew my subscription to your magazine, which turns out to be a slick, glossy sham; you are not interested in Virginia wildlife.

Eugene E. Ross Tazewell

Our announcement was just that—an announcement, not an endorsement. Although neither Virginia Wildlife nor the Game Commission is affiliated with the Virginia Wildlife Federation, a citizens' group, it has long been our policy to publicize events sponsored by the VWF and other organizations whose mission and purpose are related to our own. This year, as in years past, we announced details of the Federation's annual awards banquet. This is an important event because it is an occasion for the VWF to recognize the efforts of the state's most dedicated conservationists, many of whom are private citizens like yourself. This year, the speaker happened to be James Watt.-Managing Editor.

A Traditional Education

Jack Randolph's "Traditional Education" in the September issue of Virginia Wildlife was as poignant and bittersweet as any outdoor piece I've read in years. A masterful job!

Garvey Winegar Stuarts Draft

The writer is an outdoor columnist whose editorial "Help Me Be A Good Hunter" appeared in the September issue of Virginia Wildlife.—Managing Editor

A Renewable Resource

Don't you people notify your subscribers that their subscriptions are going to run out, so we can renew without missing an issue?

> S.R. Carver Richmond

Why have you started putting those ugly brown covers over your beautiful

color paintings on the magazine?

Betsy Carrington Arlington

Earlier this year, we began putting brown covers over the magazines of those subscribers whose subscriptions would expire with the next issue of Virginia Wildlife. The covers have, in large black letters, the words "Virginia Wildlife is a Renewable Resource— Renew Yours Now." A similar cover was repeated on the final issue. Apparently, the message wasn't clear, because a lot of people have complained that we aren't notifying them that their subscription is about to run out. We have redesigned the cover slightly, and hope that you'll all be on the lookout for it so that you won't have to miss a single issue of Virginia Wildlife.—Managing Editor.

Cover Analysis

The front cover of the October issue of Virginia Wildlife is interesting and was worth a bit of analyzing, rightly or wrongly, as follows.

The decoy supporting box, purportedly, is an antique shipping container for loaded shotgun shells, made by "The Peters Cartridge (per photo) Co.'

The box is stenciled "3 - 11/8 - 6," "12 ga." shells, and designates the shells as 'Target" loads.

The six shotgun shells in the photo can be identified by their markings as made by "Federal," and are marked "3 inch" (right hand green shell); and "MAGNUM" (left hand red shell), they are all high brass, and are sealed with a six point folded crimp.

Moot points.

We have six shells, if out of the supporting crate, which are 12 ga., 3" long, for "TARGET" use, yet are stenciled, "Magnum," which agrees with and are, high brass.

Today a target load is low brass, normally it is 9, 8, or 7½ size shot, and is in a 23/4" case. Therefore, it seems to me, that "MAGNUM" is a relative newcomer to shot shell designators.

The seal of the subject shells is a 6 point folded crimp. Shells of long ago were rolled crimp.

The glossy sheen of the pictured shells implies, to me, that they are plastic. If so, shown.

This was all for fun, not critical. Any comment?

> Robert E. Lee Falls Church

Nope.—Managing Editor.

Virginia Wildlife Gifts

Last year I took advantage of your special offer of ten subscriptions. I have just learned that one of the addressees has received only one issue and had to pay 55¢ postage to get that.

I do not have an accurate list of those to whom I tried to send Virginia Wildlife and would be reluctant to ask if the others are receiving their issues.

Please comment. (It may be that I provided the wrong address.)

> Roy Wood Mars Hill, NC

I wish we had received this letter several months ago, so that the subscriber would not have missed so many issues. The address given us was indeed incorrect.

I am going to take this opportunity to reiterate some things about subscriptions and gift lists:

We must have correct addresses and correct zip codes to ensure delivery of Virginia Wildlife. The post office will not track people down for second and third class pieces of mail, whether the address is simply incorrect or the person has moved. Even if he has left a forwarding address, the post office will not forward magazines unless the person has guaranteed that he will pay additional postage. And even then, the post office will only do this for a limited amount of time.

So—donors, please make sure that all names on your gift list are clear and accurate and include the correct zip code.

And subscribers, make sure that your name, address and zip are clear and accurate, and please notify us (preferably in advance) when you move, and tell us your old address and your new address.

Please notify us right away when you have problems with delivery of your magazines, so we can correct them as soon as possible. If you don't tell us, we have no way of knowing that you're having trouble. (Of course, it does take six to eight weeks to get your first issue after you order it.)

And, although we are now able to send they may not have come out of the crate copies of gift lists to donors when it's time to renew, it's a good idea to keep a copy of the list you send us, so that you can refer to it if and when you have a problem in the meantime. -Managing Editor



Taking Wing

A boy's first duck hunt is a part of a cycle of tradition.

by Steve Ausband

y son rises silently from his bed at the touch of my hand and begins to dress quickly in the cold room. He pulls on heavy clothes, men's clothes, and slings over his shoulder the coat with loops for shotshells. In an instant I see myself years ago, my own bony body shaking as I rise to my father's touch, my boyish excitement as I dress in hunting clothes and walk downstairs with my father to the room where men in coats almost like mine talk quietly at tables, drink steaming coffee. Now it is my son following me down the steps into the overheated room, with its bright light and the same talk and the same smell of coffee. For a moment I feel as if I am a ghost watching myself, watching the boy's eyes, his fingers, as they touch the frozen window pane. As his fingers meet the cold glass, it is I who shiver.

Stephen sits between my brother and me in the truck, listening to our talk. I feel what he is thinking—that the truck is an island of light and warmth and conversation bumping along through a cold and quiet sea of dark fields and darker woods. We stop the truck with others at the end of a dirt road, and there is much fumbling with waders and flashlights; someone's dog runs from one group of hunters to another, getting all the smells straight. Stephen looks comically ponderous in hand-me-down waders, an adult's castoffs. "Boy," says one hunter, shining a light on him, "you look like an elephant that lost weight."

Soon the sun will be up, and we hurry through the dark woods, feeling the land slope away under our feet toward the flooded bottoms and beaver ponds a mile away. The boy labors in the heavy clothes and waders, and I try to remember not to walk too fast. We enter the flooded timber as the dawn turns the dead trees grey, and a mist rises from the water. Wings whistle over our heads as we pick our way deeper into the swamps. Just after dawn I kill a wood duck and miss another, and I can hear, a short distance away, my brother's shotgun. The shooting is fast, as the birds twist their way through dead stalks of trees in the morning mist. I kill another duck and miss two more, and suddenly there are no more ducks flying.

Stephen and I sit on a log in the dark water. He talks about the ducks he has seen and shot at, and about the weeds and the tiny yellow flowers growing in the water around us, and about how the dead trees look in the mist, standing bare and straight like eerie columns in some ancient ruined temple. ike a haunted place, "he says, "really spooky but beautiful. I like this place." And then a mallard comes straight toward us out of the mist, not fast and not twisting, but just straight in, and I hear myself saying to Stephen, "Swing ahead of him; take him now. Now!" and I have begun my own swing by then, thinking he will not shoot in time. But before my barrels cross the bird I hear him shoot, and the bird folds and falls heavily like wet towels tossed down a flight of steps. I say, "Good shot," but I do not think Stephen hears me. He walks over to his duck—his first duck—and picks it up and looks at the green head and the grey breast and the dozen different shades called brown, and I know he does not need my praise. He carries the duck out of the swamp later and sits on the grass, admiring the feathers.

My brother says, "Hell, boy! You're going to be ruined now. You'll think every duck you shoot has to be big as a goose and colored like that one." "You're jealous," Stephen says, and he grins. "Sure," Bob says. "You don't see me carrying any big drake mallard, do you?" Then we leave the swamp and walk back up the hill and through the woods to the truck. Someone—I forget who—takes the obligatory photograph of a kid with his first duck, and later the picture almost turns out, except part of the duck's head is out of the picture and the kid has his eyes closed.

But it doesn't matter. I know what the boy will remember because I know what I remember from years before and maybe what all kids who have ever become duck hunters have always remembered. He will remember the room full of men downstairs, a company of adults who accepted him to hunt with them, to wear clothes like theirs and carry a man's shotgun into the swamps. He will remember their jokes and the smell of coffee in the overheated room. He will remember the ride in the truck, bumping along a dirt road through the dark, and the feel of the cold barbed wire that he crossed and then held for others to cross in the woods before dawn. He may remember the yellow flowers in the swamp and the way the trees looked in the mist after the sun came up, and the sound of wings that he could not see. And he will never forget the duck tumbling into the dark water or the feel of its body in his hand or the way the colors of the feathers looked in the morning sunlight. He will remember all these things forever, but he will remember them so sharply that he will ache on the day, many years from now, that he shakes his own son out of sleep on a cold morning, whispering, "Get up boy. We're going hunting." □

Steve Ausband is with the department of English at Averett College in Danville.



Washing Away the Resource

Erosion is robbing us of one of our most precious resources: soil.

by Terry N. Grimes

field in Southwest Virginia lies without vegetation beneath a gray Land threatening November sky. During the summer months, rows of corn planted in the field produce a bountiful, golden crop. Now, however, as winter approaches, scattered dry and parched leaf fragments give the only evidence of what grows here. Raindrops begin to fall, pelting the barren soil. As the drops begin to fall regularly and continuously, tiny rivulets that form in the field braid toward a nearby stream. The rivulets carry a mixture of rainwater and topsoil into the stream. The run-off from the field muddies the stream until the water that only minutes ago flowed blue-green and clear now flows turbid and brown.

Erosion is an insidious process that washes valuable topsoil into streams and rivers all across Virginia. Nationwide, erosion robs farmers of an estimated two billion tons of topsoil each year. Minerals and other soil nutrients are washed away, as well, so that farmers must augment the mineral content of the soil by adding expensive fertilizers to it. Soil lost through erosion is, as a practical matter, irreplaceable, for centuries of rock fragmentation and decay of plant and animal tissue are required to produce soil. This scenario is especially tragic because much of the soil and mineral loss could be prevented through implementation of wise agricultural practices and land management techniques.

Water-borne erosion of agricultural lands accounts for as much as 50 percent of all soil loss. Other causes of soil loss in Virginia include excessive cattle grazing, livestock activities in and near streams, surface mining, and careless construction and poor placement of roads, parking lots, bridges, and buildings.

The loss of topsoil and soil nutrients presents the farmer with an economic loss that is difficult to quantify. Moreover, accelerated erosion of topsoil causes excessive and unnatural sedimentation of streams and rivers and premature filling of lakes and reservoirs. In streams whose beds consist largely of boulders, rubble, and gravel, such as John's Creek in Craig County and the New River in Giles County, increased sediment loads alter the composition of the aquatic community, particularly the fish and aquatic insect populations.

The sediment that enters a stream filters down through the water column, eventually settling on the stream beds and filling the interstices, or intragravel spaces, in the stream rubble. A world of life thrives in these interstitial cavities. In streams without excessive sediment loads, adult and nymphal or larval aquatic insects roam about the interstices,



Gully and sheet erosion from bean field; note silt deposits in foreground.

USDA Soil Conservation Service

feeding upon algae, bacteria, fungi, protozoa, and detritus. Adult aquatic insects and crustaceans lay eggs among the rubble and scurry into the interstices to escape fish and other predators. Rubbledwelling aquatic insects form an indispensable part of the diet of many species of stream fishes, including rainbow, brown, and brook trout, smallmouth bass, rock bass, certain sculpins, darters, madtoms, and a variety of minnows, including chubs, shiners, and black-nose dace. The sediment that fills the interstices eliminates insects and crustaceans that dwell in the rubble. If the diminuition of the food supply does not effectively eliminate the fish populations, an inadequate food supply will at the very least restrict the number and growth rate of those fishes that survive, thus making the stream less productive.

Excessive sedimentation has a dramatic impact on the fish populations directly, as well. Fish that are intolerant of silt, such as trout, are replaced with less desirable species such as carp, certain suckers, bluegill, and bullheads, all of which can tolerate silt. Because trout spend the early stages of their life cycle dwelling within the intragravel spaces, trout are especially sensitive to increased sediment loads. During spawning season, adult trout dig a nest, or redd, in the loose gravel at the stream bottom. The female trout deposits the eggs in the redd; the male fertilizes the eggs, and then the spawning pair buries the eggs with gravel. After a period of time, the larval trout, or alevins, hatch and remain in the intragravel spaces, feeding and growing until they are large enough to emerge from the gravel. If sediment covers the redd after the eggs are deposited but before the young trout emerge from the gravel, the eggs and developing trout suffocate because the sediment that has blocked the interstices prevents

oxygen-laden water from reaching the developing trout. Reproducing trout population cannot exist in streams that are laden with silt during critical stages of the life cycle. Eggs of other species that nest on the stream bed, such as smallmouth bass and rock bass, will also suffocate if covered with silt for any length of time. Smallmouth and rock bass are more tolerant of silt than trout because the nest is built on the surface of the gravel, and the parent fish remain on the nest, fanning away silt and debris with their tails. Nonetheless, no population of stream fish that consumes large quantities of rubble-dwelling aquatic insects will thrive in a silt laden stream that does not support an adequate population of aquatic insects.

If erosion raises the cost of farming by carrying away topsoil and nutrients and adversely affects the aquatic community, why doesn't society work to curb

DECEMBER 1982 7



Water-borne erosion washes away valuable topsoil.

Virginia Game Commissio

erosion? The answer is complex. Erosion is a slow, destructive process that often proceeds unnoticed. It claims topsoil and nutrients gradually over a period of years. The sediment in streams washes downstream slowly, filling lakes and reservoirs over a period of decades, if not centuries. Though erosion is also a natural process, human activities such as farming near streams, strip-mining, and cattle grazing accelerate the process of erosion. Frequently, fishermen who fish today in a silt-laden stream flowing through a farmer's field never realize that the land was once forested and that the stream was once inhabited by brook trout or smallmouth bass.

Implementation of certain land management techniques can work to curb accelerated erosion. For example, buffer strip vegetation has been used in some parts of the country to curb erosion. The concept is simple: allow a width of land

on both sides of a stream to remain undisturbed by plowing, logging, or livestock grazing. The forbs, grasses, shrubs, and trees that grow in the buffer strip stabilize the soil, restricting overland flow and preventing run-off from entering the stream. The roots of the plants increase soil porosity, making it easier for rainwater to filter into the soil instead of washing across the surface of the soil. The farmer benefits because his topsoil and nutrients are not washed into the stream. The sportsman benefits because the stream can once again support fishes such as trout, smallmouth bass and rock bass.

The optimal width of the buffer strip will vary with the stream and bank gradients, soil porosity, type of vegetation growing in the buffer strip, and the use of the land adjacent to the stream. No formula can adequately predict the optimal width of a buffer strip that will

suit all streams, but as general rule, allow a buffer strip to two to three times the stream width for smaller streams and one to two widths for larger streams and rivers. Obviously, if the stream is substantially discolored during a heavy rainfall, the buffer strip is not effectively curbing soil run-off.

The importance of maintaining the integrity of Virginia's forestlands, fields, and farmlands cannot be overemphasized. Soil erosion robs the farmer and the public of topsoil and nutrients and alters the structure of the aquatic community. Accelerated soil erosion is a process that can be prevented. Conscientious land management is essential to prevent the washing away of one of Virginia's most precious resources—her soil. □

Terry N. Grimes of Williamsburg earned a master of science degree in fisheries and wildlife from Oregon State University in 1981. This article is derived from research done for Terry's master's thesis.



Brookies Versus Nature

Your biggest competitor for natives in your favorite trout stream may not be another angler.

by Arthur L. LaRoche, III

have you ever spent your early waking hours fighting your way through briers, rhododendron, and brush in anticipation of filling your breakfast plate with plump native brook trout from your favorite trout stream, only to find that it appears someone has beat you to the punch? You fish for hours, catching only a few brookies in the time you normally would have filled your limit last year. Finally in disgust, you "thank" under your breath the fisherman who surely must have been here yesterday and leave for camp, feeling somewhat skunked.

Although you may feel as though the "other" angler is your biggest competitor for the highly colored native brook trout of southern Appalachian streams, you may be wrong. You may be dealing directly with nature itself.

Native brook trout populations of the southern Appalachian region are primarily restricted to small "pristine" headwater streams due to habitat requirements. These small mountainside high gradient streams with cascading waterfalls and crystal clear pools may seem like the ideal place to reside if you were a fish. However, this kind of environment can be harsh and rigorous for a fish, and in particular for native trout. Although these streams are rather tranquil for most of the year, they are also susceptible to periodic environmental "catastrophes" such as spring and winter floods, winter ice, and summer droughts.

Although floods are a major concern to all who live along the banks of a stream, how many people take time to wonder what takes place during a flood in their favorite trout stream? Spring and winter floods are perhaps the most detrimental to native populations. Brookies spawn in gravel located in relatively shallow unprotected areas of streams during October and November in the southern Appalachians. The eggs mature over winter and develop into emergent fry in the early spring. In exceptionally cold winters, these high mountain streams can develop considerable ice cover and instream frazil ice (ice crystals or snow floating in a body of water). Frazil ice forms among the gravel in which native trout have spawned, appearing as a cotton-like mass on the stream bottom. When these conditions persist for an extended period, trout eggs and sac fry in the gravel may suffer high mortality, as will adult trout which may become trapped in ice caverns.

Solid ice cover, however, can be even more hazardous to native populations. Virginia winters are characterized by occasional "warm" winter rains and thaws. During these thaws, floods may develop carrying large ice chunks downstream, jamming and scraping the stream bottom like a bulldozer. During these ice releases, native trout spawning sites may be destroyed by these miniature icebergs, releasing trout eggs and sac fry to the turmoil of the stream current and certain death. Adult trout may also be overpowered by released ice, causing them to be trapped in ice jams or thrown onto the stream bank.

Even if native trout eggs, sac fry, and adults survive the harsh mountain winters of the Appalachians, odds are that they will not become the trophy fish every angler dreams of catching. Spring and winter floods also take their toll on native trout by sweeping fish out of the streams and onto the bank, trapping fish and other aquatic organisms in small pockets of water which eventually dry up in the hot summer sun.

Floods, however, are not the final onslaught waged





"Native" or brook trout (preceding page). Both photos (above) show the south fork of the Tye River. Whether a winter flood or a summer drought, a natural catastrophe can be the trout's greatest enemy.





against native populations in these streams. Perhaps the most detrimental natural environmental catastrophe that native brook trout must deal with is summer drought.

Native brook trout streams in the Appalachian region are generally unproductive and infertile due to a lack of basic nutrients. This infertility in many streams leads to an inadequate food supply, eventually a limiting factor for native brook trout populations.

As a drought strikes, water levels begin to drop, eventually concentrating large numbers of non-game fish and native trout into pools connected to each other by very shallow riffle areas. In harder hit areas, the stream may be restricted to only these small pools without the benefit of connecting riffle areas. In addition to decreasing water levels in the stream, water temperatures may begin to increase due to a lack of adequate "cold" spring water as water table levels also drop. While concentrated in these dwindling pools, native trout must compete with each other and non-game species for the limited food supply available in the pools.

Native brook trout depend heavily on terrestrial insects from the surrounding land for their primary food supply in summer months. These insects drift on the surface of the stream and are picked up by feeding trout. But, when there is very little water moving down the streams during periods of drought, the food supply is not adequately replenished and becomes very restricted in these pools where trout are congregated. With this lack of food supply and high water temperatures, brookies begin to lose weight and may eventually starve without relief from the drought. However, those trout that do survive this "starvation" period are not out of the woods yet. When concentrated in these pools, the natives are highly susceptible to predators because of a lack of cover or places to hide when attacked. These predators include water snakes, raccoons, king fishers, and unfortunately, man.

final detrimental effect brought on by drought conditions may be a lack of development of sex products in native trout. Brook trout spawn in the fall and are thus in the process of developing these sex products throughout the summer months. During drought conditions when the food supply is limited, native brook trout may not develop ripe gonads, but rather channel what energy reserves remain towards survival. In some cases, when sex products are already developed, native trout may reabsorb all or a high percentage of these sex products for their nutrient supply when food is lacking. The end result is little or no spawn that fall, a missing year class the next year, and ultimately poorer native fishing for the next few years to come.

Although it is true that man is responsible for the decline of the native brook trout in many areas of the Appalachians, periodic environmental "catastrophes" may well be the greatest limiting factor to their well being. So, the next time you go fishing in your favorite native trout stream and come up with only a few brookies, ask yourself what the weather has been like in the last year or two. You may discover that you've been out-competed by nature rather than by another angler.

"Bud" LaRoche is a biologist with the fish division working out of Clarksville.



IstletoeThe Mythical Kissing Plant

by Jack Randolph

It the sound of the shot, a bushy green object fell from the tree in a shower of leaves and twigs.

"Shootin' squirrels?" asked my hunting partner, Henry, calling from the goose blind out in the field.

"No," I answered. "Mistletoe."

Henry left the blind and hurried over to me at the edge of the nearby woods. "Did you say mistletoe?"

"Yep," I replied. "See those bushy clusters way up in the trees?"

"Is that mistletoe?" asked Henry, almost to himself, quickly adding, "That's right, mistletoe is a parasite, isn't it?"

For me to tell Henry anything about plants would be unusual. He is a successful farmer from New Jersey and when it comes to plants, I usually do the asking. However, they don't have too much mistletoe in his part of Jersey, but it is very common in Virginia along the James River where we were hunting geese.

"Here," I said, offering a couple of buckshot shells. "See if you can get some."

Shooting is about the only way I know to collect mistletoe from its lofty perch, high among the bare branches of the trees. A parasite, the mistletoe gathers some sustenance through its green leaves, but most of its nourishment comes from roots that work their way under the bark of the host tree. In some cases, mistletoe has been known to kill a tree, yet it will survive by obtaining its food through its leaves.

We all know the delightful things that can happen under a sprig of mistletoe, but have you ever wondered how it all got started?

According to an old press release from Texas, kissing under the mistletoe was handed down to us from Norse mythology. Freya was the goddess of love and had a son named Balder. She made him invulnerable to every living thing except mistletoe. (Why mistletoe was excepted is anyone's guess.) As fate would have it, the word got out and the evil god, Loki, set up Balder to be killed by a dart made from mistletoe. Along came another goddess, Hela, who took care of the dead and who returned Balder to life with the admonition that mistletoe would never harm him so long as it was kept from hitting the ground. Freya was then given custody of mistletoe, and because she was the goddess of love, the little green plant has been associated with kissing ever since.

According to the National Wildlife Federation, there are

more than a thousand varieties of mistletoe in the world. Wherever it grows, it seems that it is or has been associated with some sort of superstition. This is probably because ancient civilizations were unable to explain how mistletoe grew. It was thought that the plant had supernatural powers.

Early Italians thought mistletoe was the "Golden Bough" of the Sacred Oak of Italy. If a runaway slave could break off one of the magic branches, he could challenge the king to combat. If the slave won, he would be king—until the next guy came along.

Christian mythology says that mistletoe was once a normal tree, one that supplied the wood for Christ's cross. As a result of this guilt, the tree was condemned to being a parasite forevermore.

Peasants in England and Japan believed that eating mistletoe would make barren women fertile. African tribes used mistletoe in their battle dress to ward off injury. In Europe, according to the National Wildlife Federation, corsages of mistletoe were worn to ensure a successful hunt. The Swedes used wood from the plant in the sword handles to ward off witches.

Over the years, the mistletoe was believed to have medicinal value. It was used for everything from toothaches to snakebites. History fails to record how the patients made out after receiving a dose of this unpleasant-tasting remedy. Probably the patient was too sick to care. In the United States, there are at least 10 species of mistletoe that are poisonous to man, so it's a good idea not to try to make any home remedies from this stuff.

The ancient Druids thought a great deal of mistletoe. They used to gather mistletoe and hang it in their dwelling as a good omen in the winter. Perhaps the Druids can share the credit for the present popularity of mistletoe at Christmas.

The National Wildlife Federation says that there is only one bird that relies solely upon mistletoe for food. This bird, named appropriately, is the tiny Australian mistletoe bird.

According to biologists at the Texas Parks and Wildlife Department, deer love the stuff. The biologists say deer are sometimes less cautious when mistletoe is available. On one brush-clearing project, deer were sometimes in danger of being run over by bulldozers when they pounced on the mistletoe as soon as the trees fell.

Of course, deer are not the only critters that have been known to lose their heads under the mistletoe. Enough said. \square

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DECEMBER 1982



A Matter of SURVIVAL

"Your old kit bag" takes on a new meaning when it's an exposure kit; take the time to pack some small but significant items before you take to the field.

by Dinny Slaughter

n a pleasant winter day last year a young woman and her companion set out on a hike, became lost, and were forced to spend the night in a mountainous area of Virginia. The companion barely escaped with his life; the young woman died of exposure before morning. This tragic situation is all too common. Hunters, hikers, trappers, birders, and other nature-loving people enter the winter woods during sunny daylight hours with no intention of spending the night. When injury, loss of direction, or other unforeseen circumstances prevent their return, the need to survive exposure to natural elements is suddenly and unexpectedly thrust upon them. Surviving a night in the woods at low temperatures and inclement weather conditions can be excruciatingly painful, even fatal.

I'm a loner by nature and spend many of my days alone in the woods during the early winter months. So I know that I might also be required to spend an uncomfortable and possibly fatal period in the woods awaiting rescue or help. A slight misstep on a slippery rock while creek trapping or a fall while exiting my tree stand could easily set up a situation where returning to my truck before dark would be impossible.

Although someone should always be aware of your general location, it could be hours or even overnight before a rescue party arrived at your spot. You might possibly be unconscious by then and unable to call out or otherwise direct your help. A person who is soaking wet from falling into water or from freezing rain, or can't walk because of sprained or broken limbs, won't last long at near- or below-freezing temperatures. Even if you pursue your outdoor adventures with another person, it could be hours after an accident before he or she returned with sufficient help to help you out of the woods in the dark and unfamiliar landscape.

Anyone entering Virginia's winter woods should be equipped to spend the night. But few of us want the burden of carrying exposure equipment in addition to other items required in pursuing our hobbies and interests. We don't like to lug additional equipment no matter how important to our well-being, especially if it's uncomfortable or causes additional planning and

expense.

I have put together an exposure kit that will serve me well if needed, but does not add to already heavy loads. And you can create your own kit. Just keep some basic

things in mind:

Shelter from the elements (wind, freezing rain, snow, cold, etc.) is the most important factor in surviving a winter night outdoors. Food and water aren't as important for short periods. For my kit I purchased a rescue blanket of "space age" materials, available from most outdoor catalogs. The blanket is extremely small when folded, but opens to 56 x 84 inches. Constructed of metalized PVC fabric, the blanket is purported to reflect 90 percent of a person's body heat. It's orange on one side for high visibility and silver on the other to reflect search lights; it is waterproof, windproof, and won't crack or mildew.

The next item: something to provide heat. I decided against matches because they get wet from the slightest

moisture, blow out in the least wind, and I can't hold onto one with wet, shaking, cold hands. So, I chose a butane lighter which gives thousands of lights and has an adjustable flame. Unlike a match, it burns continuously if you hold the lever down permitting more flexibility in starting a fire. As a test, I placed mine in water for three hours and it still worked perfectly when I removed it and blew the water off the friction wheel.

Next, I added a small whistle on the theory that I could blow on it longer than I could shout, and the sound would carry further and be more noticeable because that sound is out of place in the quiet woods.

I added a small pocket flashlight to the kit. If you've ever tried to find firewood in the dark, you'll know why. I can also use it for signaling at night, or leave it lit in the crotch of a tree to attract attention even while I sleep. For the same reason, I carry 10 yards of bright orange surveyor's tape—it's light, requires little space, and when stretched between two limbs or draped over rocks or marsh grasses, can be easily noticed by a search party.

hen I chose a container for all these items, I considered a soft camera or lens case, tobacco pouch, zip lock bags, and a snap purse, among other things. But I finally selected a soft eveglass case. It is water-repellent and has a flap top which keeps out dirt, rain and snow and, most important, has a pressure-type clasp on the back which allows me to clamp it on just about anything. It can be snapped onto my belt, pocket, boot, camera strap, or just stuffed into any convenient pocket of trousers, vest or jacket. Since the glass case still has a little space available after the important items were inserted I added a few things for convenience—25 feet of heavy cord, a magnifying glass (I don't always carry my glasses), and a small package of aspirin tablets. The whole unit weighs just seven ounces and cost less than \$10.00.

How can I be sure that I won't leave my life-saving exposure pac at home or in my truck? That's easy! I also use it to carry my hunting, fishing, and trapping licenses. I wouldn't dare enter the woods without it!

These are only guidelines, and you will certainly want to tailor the exposure pac to suit your needs and your budget. And you should give some thought to how you would alter the contents of the kit for different seasons of the year, and for your various outdoor activities. Although we think of winter as a dangerous time to be lost or stranded outdoors—and it is—no season is without its own perils. For example, lack of water and/or salt can be a real problem during hot weather. And believe it or not, a fly fisherman who falls into his favorite trout stream can die of hypothermia even on a warm day.

So, although the contents may vary according to the sportsman who carries an exposure pac, the most important thing to remember is that you do need one. Careful thought, and a little time and money are all you need to get started. And your efforts may very well save a life some day.

Dinny Slaughter recently retired as an animal management supervisor at the Smithsonian Institution's Conservation and Research Center in Front Royal. Since his retirement, he has been able to spend more of his time hunting, fishing, writing and photographing.

now on Christmas seems to have become a traditional dream. Every jolly soul dreams of being in one of those snowy scenes so classically brushed on Christmas greeting cards. On Christmas Eve, snow is "wished" to sift through gray clouds, dance down the sky and silently dust the earth with a spotless white blanket, fashioning even the most unsightly sights into an elegant winter wonderland. Just like a Currier and Ives print! For white Christmas dreamers, evergreens must droop with snow, as if fluffy white furs had been draped over their limbs. Velvet songbirds flock and trim the snowy limbs, living ornaments. Hollies glisten in the snow as if their lustrous red berries were strings of tiny Christmas lights. Icy streams swirl through wonderlands where snow balances on every limb. Out of nowhere, a gust of wind suddenly sweeps Christmas snow along edges where bank meets stream, woodland meets meadow and snow fence meets drive. Gray smoke puffs from icy chimneys and a warm fire glows inside. But the snow's magic draws family and friends outside, where the ground is now white. Carols, giggles and hearty laughter spread merriment over the hush as skates and sleighs are dusted off and snow "people" come to life. The Christmas snow nips noses, pinkens cheeks, frosts breath and brings out joyous goodwill towards man and beast. Like the magic of the star topping the tree is the snowy eve when lights are switched on and reds, greens, blues and yellows flicker warmly through the cold snow like the warmth from the twinkling eyes that excitedly watch.

Are you dreaming of a white Christmas? How many have you known? Christmas weather is sometimes mild in Virginia. There are no "tree tops glistening" nor "sleigh bells ringing in the snow." Many times only evergreens paint the December landscape. Tall pines stand like stiff tin soldiers swirling whispers of fresh scent, but without a wrap of snow. Sometimes we must resort to a little poster paint and a lot of

imagination, and turn windows into the snowy Christmas scenes we can only envision. As Bing crooned: "The sun is shining, the grass is green. But its December the twenty-fourth, and I'm longing to be up north. I'm dreaming of a white Christmas."

However, there are regions of Virginia that don't always have to dream about a white Christmas. (Definition of a white Christmas used here is snowfall or snow on the ground on December 24 or 25.) In the central mountain and southwestern mountain regions, in 21 out of the last 26 years (1956-1981), there has been snowfall or snow on the ground on December 24 or 25, for at least one station in each of these two regions. Roanoke's airport, in the central mountain region, is the station that has reported the most snow in December 24 or 25 in the state for the past 26 years. Since 1956, Roanoke has had snowfall or snow on the ground for December 24 or 25 for 20 out of the last 26 years. In addition, Roanoke has also recorded the snowiest Christmas Day, with 14.6 inches in 1969. The year that most stations in Virginia recorded a white Christmas was 1962, when 29 stations reported a white Christmas on December 24 or 25. There were three years, 1964, 1971 and 1972, when not one station in the entire state recorded snowfall or snow on the ground for December 24 or 25.

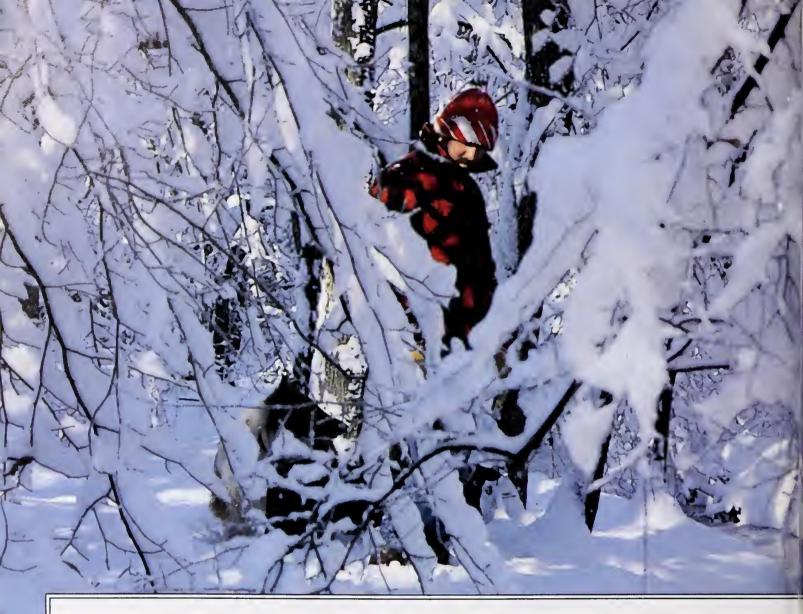
idewater and the eastern piedmont regions have recorded the least number of white Christmases since 1956. Both regions have recorded only 10 out of the last 26 years when at least one station reported snowfall or snow on the ground on December 24 or 25. However, the town close to where I live, Lively (tidewater region, Warsaw station), reported one of those white Christmases just last year. If you would like to see how many white Christmases your home town has had in the past 26 years, refer to your regional chart. May all your Christmases be white!

DREAMIN' of a White Christmas

What are the chances of seeing snow in your hometown this Christmas?

by Pat Cooley, Cindy Foster and Jim Foster



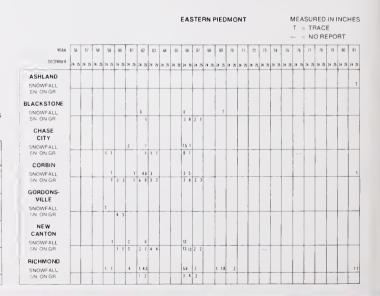


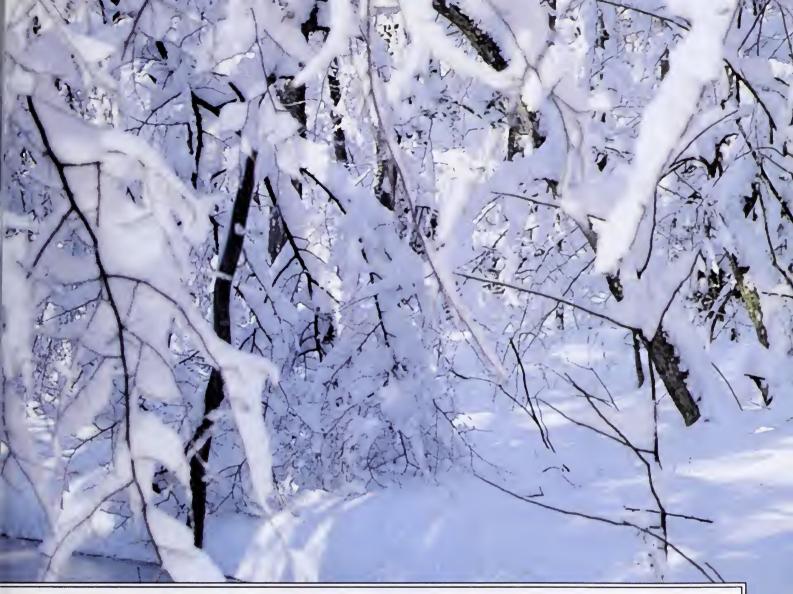
How To Read The Charts

The state of Virginia is divided into six regions: tidewater, eastern piedmont, western piedmont, northern, central mountain and southwestern mountain. There is a chart for each region. Each region has several reporting stations listed on its chart. The amount of snowfall and snow on the ground is given as reported from these stations for December 24 and 25 from 1956-1981. First locate the chart for the region of your interest. Then find the station (arranged alphabetically) which is closest to the area you are interested in. Next read across the top of the chart for the year in which you would like to see if a white Christmas was recorded. There are two rows of data marked December 24 and 25. Under each sta-

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tion there are two subheadings: snowfall and snow on the ground. Snowfall indicates the amount of snow that fell on that date. Snow on the ground indicates that amount of snow that actually accumulated on the ground for that date. \square





(Preceding page) Snow drifts into the crevices between logs in a pile, shares a tree with a cardinal, and causes evergreen branches to droop under its weight. (This page) Ice and snow are common to a few regions in Virginia, but a white Christmas is usually a surprise.

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Field Notes_

Do You Brake For Wildlife?

by Lt. D.R. Miller



ighways and paralleling rightsof-way are often at the edges
or fringes of wooded areas,
forests and fields, creating ideal habitat
for wildlife. Many plants and perennials which are cultivated to create
safety hedges and to beautify our
highways also provide food and cover
for wildlife.

Introduce a lethal weapon like an automobile into this tranquil setting, and what do you have?

Among other things, you have a deer mortality of 2,361 in 1981 alone. And since that figure reflects only those road kills which are reported, the figure is presumably higher—perhaps significantly so.

Deer aren't the only victims: no wild animal, large or small, game or nongame, is immune to this threat. And these collisions are usually fatal, even to the larger species such as deer and bear. They also pose a significant hazard to the driver and occupants of the car, who may sustain injuries as well. Damage to the vehicle is another, real possibility.

At night, deer, rabbits and nocturnal animals are especially susceptible because confusion and disorientation result when the animal is blinded by the bright headlights of an automobile.



Deer are transfixed by headlights.

The opossum which has escaped the threat of predation for millions of years has at last encountered an unmerciful opponent.

Ducks, owls, skunks, minks, muskrats, beaver, foxes, turkeys and grouse often become casualties and virtually all other animals from eagles and song birds to frogs and snakes become victims.

Many people are not aware of their legal responsibility regarding road kills. If you immobilize or kill an animal by hitting it with your car, you should call the local game warden. If it is a deer or bear, you may keep the meat, but *only* after you have called the game warden,

who must examine the animal first (Sec. 29-155.2 and 29-155.3 of the Code of Virginia). It is illegal to possess any other animal which you have hit, since it is illegal to possess any wild bird or wild animal except as permitted by laws and regulations such as hunting regulations (Sec. 29.143).

Road kills represent a tragedy which can be prevented. Simply being alert for the unexpected is your greatest protection. Be aware when you are driving in areas with dense populations of wildlife. If you see one animal, it's highly likely that more are nearbyanimals are often in pairs or family groups. Be on the lookout for deer in the fall—they tend to be especially active and visible then. There may be several reasons for this—fawns, born in the spring, are now at the point where they are old enough to move about more freely; cooler weather means that food availability is changing, and deer are wandering to find new food supplies; and the oncoming mating season may account for some of this increased visibility. In any case, deer mortality from road kills does go up at this time of year, so it may help you avoid an accident if you are aware of wildlife habits.

Lt. Miller is an education supervisor in the Commission's law enforcement division.

Growing Up Outdoors_

Christmas Trees

by Sarah Bartenstein

here are sights, sounds and smells that instantly make us remember various occasions and events in our lives. Christmastime is certainly filled with those things: sights such as snow on the ground and candles burning in the windows, sounds such as "jingle bells" and carol singers, and smells such as holiday baking and—perhaps most familiar of all Christmas trees! What could be more "Christmas-y" than that wonderful fresh smell of evergreen trees?

Perhaps you live in a rural area and can cut down your own Christmas tree, or maybe you live in a town or city and go to a Christmas tree lot to pick one out. Where do Christmas trees come from?

Well, just as there are farmers who raise crops or livestock, there are those who grow Christmas trees.

Here's how it starts: the people at tree nurseries collect pine cones, and get the seeds out of the cones. They plant these seeds in seed beds. These grow into seedlings. After the seedlings have grown for about two or three years, they are replanted in open fields on Christmas tree plantations.

Most of the trees raised in Virginia to be Christmas trees are white pine, Scotch pine, Fraser fir, and balsam fir. The pines are sheared each summer to shape them. The scraps from these trimmings are sometimes used to make other decorations such as wreaths and garlands.

Did you know that it takes seven to nine years to grow a Christmas tree (six or seven feet tall)? Of course, the larger ones take even longer to grow. Banks and other businesses (as well as some poeple with very high ceilings!) like much taller trees than most of us do. The governor of Virginia gets a very large tree for the Governor's Mansion in Richmond, and the president gets a huge tree for the White House in Washington. Each year, contests are held to judge the best Christmas trees in the state and in the country. The state award-winning tree is used to decorate the Governor's Mansion and the national winner goes to the White House.

Christmas tree plantation owners sell their trees, by the hundreds or even by the thousands, to the people who sell them at tree lots throughout the state in cities and towns. Some plantation owners will let you select and cut a tree yourself. Either way,

trees are usually priced according to their height, averaging \$2 to \$4 a foot. Some tree farms and special tree lots

will sell you "live" Christmas treesthe roots are saved and wrapped in burlap—so that you can replant the Christmas tree later instead of throwing it away. If you buy one of these trees, don't immerse the base in water; just spray it lightly with a spray bottle to keep it moist. Call a local tree nursery or an extension agent to find out the best way to transplant the tree in your area.

If you buy a cut tree, you should take it home and cut a small portion off the bottom of the trunk and submerge it in a bucket of water and leave it outdoors or on your porch until you plan to use it. After setting it up and decorating it, make sure that the bucket or stand in which the tree is sitting has plenty of water in it, to keep the tree fresher longer, and to reduce the fire hazard. Some people add commercial plant food developed especially for cut trees and flowers. You can use this (follow package directions), or add a little

sugar to the water.









Cindy Foster

Personalities_

Warden of the Year: David R. Ramsey

by Francis N. Satterlee

e is a gentle man. Gentle in his way with people, especially youngsters, with wildlife and in his day-to-day approach to life. Yet there is a steel-like base to his being that marks him as his own man and is the foundation of his excellence as a Virginia game warden. This excellence was recognized in a special way recently when the executive director of the Commission of Game and Inland Fisheries, Richard H. Cross, Jr., named David Ramsey Warden of the Year for 1982.

In making the announcement of Ramsey's selection, Cross said that "this recognition is the result of his excellent law enforcement record combined with outstanding public relations work." The director also said, "Ramsey's weekly radio program and the hunter safety program in the Frederick County schools were major contributors to this honor as well as the splendid rapport that he has gained with the local sportsman clubs." As Warden of the Year, Ramsey joined his counterpart Wardens of the Year from other states in attending the Southeastern Conference in Jacksonville, Florida October 31 through November 3,

Ramsey was originally from an area of Rockbridge County known as Long Hollow. It was in that community, located close to Buena Vista, that his father, an employee of the Norfolk and Western Railroad, made a home for the family. His grandfather's farm was nearby and it was there that young



Ramsey worked long hours doing all the normal farm chores during his growing-up years. In retrospect, he feels that "thinning corn was some of, if not the hardest, work that I have done in my life."

His father had little time to do anything except provide for the family and, consequently, did little hunting or fishing. However, his kinfolk on his mother's side were avid hunters and fishermen and this rubbed off on Ramsey. During his youth he spent as much time as he could fishing and just being outdoors. He also spent considerable time playing both basketball and baseball. He was pitcher on the Fairfield High School baseball team and played center on their basketball team. Of the two sports, baseball has remained his favorite and he was an active participant until a few years ago

when he sustained a broken arm after a fall.

Shortly after graduation from high school he became employed by a carpet manufacturing firm in Glasgow, Virginia. He stayed with that organization until 1962 when he learned of an opening for game wardens with the Virginia Game Commission. He was accepted and was assigned to Frederick County, where he is today. In March 1978 he was promoted to sergeant and given the responsibility for Clarke and Warren counties in addition to Frederick County.

One of the most rewarding aspects of his work as a warden is his constant association with youngsters. Much of his contact has been in the hunter safety training program. Over the years he has trained more than 15,000 students from Warren, Clarke and Frederick counties in the ongoing program.

For some 20 years he has been a member of the Winchester, Virginia Chapter of the Izaak Walton League of America. Recently he was honored, for the second time, by that organization. Much to his surprise, the Waltonians bestowed life membership in the Chapter for his outstanding work as a Virginia game warden, his continuing contribution to conservation and his work with young people.

Mrs. Ramsey is the former LaVerne Glass from Buena Vista. They have five children, two of whom are school teachers in Winchester where the senior Ramseys reside.

Non-Game Update

The Delmarva Fox Squirrel: Making a Comeback?

by Susan Gilley

s we see squirrels robbing our bird feeders, getting into our Lattics, and begging for peanuts in the park, it's hard to imagine any type of squirrel being on the Endangered Species List. Yet the steel-gray Delmarva fox squirrel (Sciurus niger cinereus) is one of Virginia's endangered species. Although we once thought that it was the victim of overhunting, we now know that its decline has been brought about through habitat destruction. With funds contributed through the tax check-off for the nongame program, the Virginia Game Commission will strive to change the endangered status of the Delmarva fox

The Delmarva fox squirrel is slightly larger than the common gray squirrel we are all familiar with, weighing in at a little over two pounds. It is a lighter gray than the gray squirrel and lacks the rusty-yellow fur common to other fox squirrels. The habitat requirements for the fox and gray squirrels are similar and the two are often found together, causing competition in some cases. The fox squirrel prefers mature open stands of hardwoods such as oaks, hickories, walnuts, and beech that are interspersed with mature loblolly pines. You will not find the Delmarva where there is dense undergrowth as you would the gray squirrel. Wherever the habitat is marginal, the grav squirrel often has a greater rate of survival than the Delmarva.

The fox squirrels prefer to nest in tree cavities but will build leaf nests by collecting leaves and placing them in the crotch (or forked branches) of a tree. The use of artificial nest boxes is an important part of the recovery plan for the Delmarva. The nesting season lasts from late winter to early fall. Litters, numbering about three depending upon the weather and food availability,

are born during February or March and a second litter in July or August. The young are born naked and blind after a 45-day gestation period. The young squirrels open their eyes after five weeks and are weaned at nine to 12 weeks. The mother squirrel is not bothered by man's activities around the nest. She is devoted to her young and will not desert them if disturbed; she'll simply move them to another nest site. This has allowed biologists to find information on the young without the fear that the nest would later be deserted and the precious young allowed to die. In fact, the fox squirrel has adjusted to man's presence so well that it is found in cities and parks throughout the midwest.

During the fall the squirrel becomes fat, eating its fill of nuts, berries and pine seeds. Unlike the gray squirrel, the fox squirrel will leave his home in the trees to range into fields of corn, soybeans or other crops. By the time spring comes, the hungry squirrels feed on unopened buds and flowers, a large quantity of fungi, often poisonous mushrooms, insects and occasionally young birds or eggs.

Being on the endangered species list, the Delmarva fox squirrel is protected from hunting, although a few are mistaken for gray squirrels each year. Its chief enemies are the larger birds of prey, foxes and dogs. The fox squirrel does not stay in the trees, unlike its gray cousin; it has been known to escape danger by running down a tree and over land.

The recovery plan for the Delmarva squirrel calls for the identification of suitable habitats and the reintroduction of the squirrels from areas with stable populations into former habitats. The Delmarva once ranged from southeastern Pennsylvania through Delaware

and the eastern shore of Maryland and Virginia known as the Delmarva Peninsula, hence its name. The range is now confined to four counties on the Eastern Shore of Maryland and to Accomac County on Virginia's Eastern Shore. Habitats must encompass croplands, fencerows, forests and open areas. The U.S. Fish and Wildlife Service Delmarva Fox Squirrel Recovery Team has identified three such habitats in Virginia. Planned cuttings and the prevention of dense understory growth protect existing habitats.

One release site for the fox squirrel is Chincoteague National Wildlife Refuge. Biologists have placed nesting boxes on the refuge and transplanted the squirrel from Maryland. The Delmarva has adapted to the area and the population has multiplied to between 200 and 300 animals. The Virginia Game Commission, in cooperation with the Fish and Wildlife Service and the Nature Conservancy, is trapping squirrels from Chincoteague and placing them in suitable habitat at Brownsville. They have moved 13 animals already and plan to release more as they are trapped. Members of the Fish and Wildlife Service trap the animals and the Game Commission transports them to Brownsville where they immediately release them. The researchers watch and protect the squirrels and they plan to artifically feed the squirrels this first winter. They hope that the population will multiply and excess animals can be moved to suitable habitats throughout their former range.

Since the Delmarva responds well to management, its future depends on intense management and habitat protection. Food availability is an important element in recovery since the size and number of litters seems to be



(Left) The silvery-gray Delmarva fox squirrel.
(Below, left) Researchers mount a nesting box for the Delmarva, who finds it to his liking (below, right).

directly related to the food supply.

As with any threatened or endangered wildlife, management and habitat security are always the prime concerns. Management is intensive and continuous. This includes the construction and distribution of nesting structures, trapping and banding for mortality and travel records and enforcement to prevent any undesirable actions from less-than-ethical outdoorsmen.

With the generous contributions of the concerned citizens of our state, the Virginia non-game tax check-off has been a crucial force in providing the means of funding such management and protection not only for the Delmarva fox squirrel, but for other species as well.

With your continued support, Virginia will again provide a home for the

beautiful silver-grey Delmarva fox squirrel. □

Susan Gilley is with the Commission's education division. She holds a bachelor of science degree in forestry and wildlife resource management from Virgina Tech, where she also earned a teaching certificate. She was an environmental educator with the Math and Science Center of the Henrico County Public Schools for four years before coming to the Game Commission.





pike Knuth

Follow an Icy Hollow

You can spend a wintry day sitting by the fire, or you can explore: the winter woods are full of life.



by Bob Belton and Catharine Tucker

(Above) "Out of the hollow flowed a lovely stream, surging boldly from recent snowmelt." (Right) "We had more country to explore, and the afternoon was rapidly advancing." (Insets, left to right) Anemone; "earth star."

ovement on the trail ahead. I see two turkeys. "Catharine, look!"

"I see them," she exclaims. Then there were five, and 10 and finally Catharine counted 15. After the first two crossed our snowy path, it was gangbusters. Turkeys everywhere! Snow flew in all directions as the startled birds struggled to gain a toe-hold for a take-off on the slick hillside. But take off they did, through tree branches, over trees, beneath them—all downhill in a ragged formation with much sound of beating wings and fury at disturbed feeding.

They left behind clear footprints in the soft snow. Thoroughly scuffled patches of crisp brown leaves gave ample evidence of their foraging for winter sustenance. They had torn up that hillside looking for acorns and whatever else their scratchings might uncover. We were fascinated.



at Coole







We had ventured out at noon with this objective: hike as far as time and energy would allow up into a winding hollow between two stalwart Blue Ridge peaks. We were hoping to see tracks of animal travels in the fresh snow and perhaps catch a glimpse of the animals themselves on this bright sunny day.

t the mouth of the hollow, Catharine had reached down to pull back a mullein leaf and show me thrips—tiny black insects—nestled snugly in the center of the rosette, taking warmth and shelter from the overlapping, felt-like pale green leaves. Those thrips must have something like "Grandma's feather bed" there to survive in this cold Nelson County hollow. Tracks of a mouse stitched two rocks together across the trail, but we had seen no other fresh tracks in the soft snow. For most of the way up the trail, we had seen only polka dot patterns formed by plops of melting snow from branches overhead. The turkeys' sudden appearance dramatically brought home to us how full of life the winter woods are.

Out of the hollow we were exploring flowed a lovely stream: on this day, it was surging boldly from snow-melt. Relatively placid where we approached it from our valley road, it crashed over rocky drop-offs at higher elevations



Turkeys left tracks in the snow.

with roaring crescendos. Several times we tried to maneuver close enough to allow Catharine to photograph the falls. But steep slopes made treacherous by the soft wet snow and slick leaves repeatedly turned us back. Finally we did manage to work our way down to a narrow shelf by hanging onto wet rocks, sliding to the next sapling and swinging around to break our momentum, then side-stepping down to the level. There we gazed into a ravine at a deep gray-green pool fed by a rushing waterfall. Mighty noisy for its size! Sitting under the big hemlock that shaded the shelf, we realized we were hollering at each other. That shady spot would be delightful on a July afternoon, but we felt chilled sitting on our heels in the snow. We decided not to linger. We still had more country to explore, and the afternoon was rapidly advancing.

We followed the trail above the stream until the hollow divided into two branches near the ridge crest between the two peaks. Our perseverance was rewarded with interesting discoveries, even if less thrilling ones than our encounter with the turkey flock. Poking through the snow right in the middle of the trail was a brown and tan sunburst about the size of a soup can lid. The wrinkled round ball in the center was a spore case that blew a puff of "smoke" when poked. This was new to me. Catharine explained that it was a fungus called "earth star," Astreus hygrometricus. These fungi emerge during cool, damp weather in fall and winter. It must have grown during one of the warm spells in December.

We snapped off seed heads and sniffed the minty aroma of wild bergamot, found lacy green leaves of Dutchman's breeches peeking out between brown leaves, and nibbled on black birch twigs, savoring their wintergreen flavor. We paused frequently to catch our breath on the taxing trail, not used to climbing so hard after a winter by the fire. Taking a long look at our surroundings was a good excuse to stop, turn around and drink in the quietness and tranquility of the snow-filled woods. The hike was invigorating, refreshing, and relieved the "cabin fever" built up during the preceding weeks of bitter cold and ice.

We almost skipped down the trail on our return down the hollow. "Boy, I wish it had been this easy going up! Like having seven-league boots!" Catharine said. "Funny though, how much more you observe when you're walking uphill than going down."

I agreed. "Changes your whole perspective, doesn't it? You notice lots more small things going up and tend to see the hillside and the views out to the valley going down."

We saw tracks on our way down we'd missed before—or maybe they weren't there. Squirrel tracks appeared on one side of the trail as "Ol' Brushy" jumped to the ground from a nearby birch or dogwood. There were deer tracks in a couple of places. How they could travel at a run over boulders on those slick hillsides was more than we could fathom. Even watching one, it was hard to believe. As we emerged from the



A bracket fungus formed an abstract design.

mouth of the hollow, flushed with the excitement of our downhill striding, Catharine spotted the white "flag" of a deer bobbing at the edge of the clearing. We could follow it into the brush, then picked it up again as the deer climbed straight up a slope which we'd have climbed on hands and knees! With seemingly effortless grace, he avoided boulder outcroppings, jumped logs and disappeared over the ridgetop. Catharine kept watching to see if he stopped just over the top to look back at us, valley-bound, with amusement and curiosity.

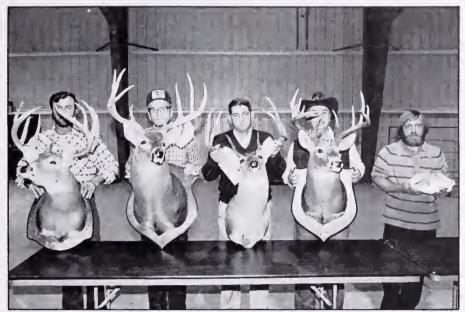
We had one more treat in store. As we ambled around the edge of the clearing toward the car, stiffness began to set in; our alertness was dulled by fatigue. The unmistakable whirr of beating wings told us we had flushed a grouse. Slow to react, we caught just a glimpse of him as he rose through the little stand of pines and disappeared in the hardwoods beyond.

iding back to the house, we munched apples and jerky and talked about our hike. We could have chosen to spend the day indoors, lounging by the fire, looking out at the lovely snow and watching for something exciting to go by the window. But we chose to stretch our legs, explore that icy hollow and look for excitement. We enjoyed that so much more. That winter adventure will be enjoyed again and again in the telling and retelling of our experiences around other fires.

Bob Belton of Afton is a regular contributor to Virginia Wildlife; Catharine Tucker, active in Trout Unlimited and Operation Respect, was recently awarded the VWF President's Award.

Outdoor Notebook-

edited by Mel White



Francis N Satterle

Big Game Trophy Winners

Winners in the 1982 Virginia Big Game Trophy Show were Edward Fielder of Mineral in Class I (9 points or more), Terry Gross of Woodbridge in Class II (7 or 8 points), Wayne Davis of Tappahannock in Class III (6 points or less), Ronnie Wines of Front Royal in Class IV (archery) and Robert Campbell of Lynchburg in the bear category.

Pictured here, left to right, are Fielder, Otis Funk, who accepted the award for Terry Gross, Davis, Wines, and Campbell.

□

Conservation Group Seeks "Corporate Detente"

The wise management of this country's natural resources cannot be accomplished "without the ability to work with corporate America," according to Jay D. Hair, Executive Vice President of the National Wildlife Federation.

In a speech October 7 at the Chevron Environmental Affairs Conference in San Francisco, California, Hair said that the role of the National Wildlife Federation is "as a broadly based, highly responsible conservation organization working for the wise management and multiple use of all our natural resources in the best interests of the resources, as well as of benefit to the greatest number of people.

"I know beyond question that we cannot succeed in that goal without the ability to work with corporate America

...There are two ways to solve conflict—through cooperation or confrontation—and I am going to see

that we always pursue cooperation first."

In seeking "corporate detente," Hair said the Federation and its 4.2 million members and supporters can do far greater good for America by working with the country's industrial leaders, and working with mutual understanding and respect.

"We are not about to be co-opted by anyone, but we are not about to reject the wisdom and experience of those who provide jobs for our people, energy for our homes and industry, and stability to the most productive and resilient industrial system in the world," he said.

In this spirit of shared goals, the National Wildlife Federation Corporate Conservation Council has been established to "create a closer relationship with a variety of American businesses and groups. Its focus will be on the future . . . We must go forward, not backwards."

Already, Hair said, a dozen different industries are represented on the Council, which will provide a "forum for corporations and the National Wildlife Federation to exchange ideas about common future problems. . a forum where we examine the framework for how we, as shareholders in the nation's

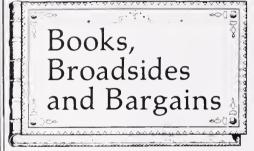
resource base, can develop and utilize the fuels and fiber necessary to maintain a nation of consumers without destroying the resource base."

As an example of conservation and corporate managers working together, Hair cited the Cooperation Wildlife Program now under way to protect the valuable wildlife resource of the Overthrust Belt in Wyoming, Utah and Idaho. That program is the result of negotiations undertaken by the National Wildlife Federation with its state affiliates, the Overthrust Industrial Association, the wildlife agencies of the states, and two federal land management agencies. There are 37 energy firms, including Chevron, involved in the program, which has a three-year budget of \$800,000.

In seeking to resolve disputes such as the Overthrust Belt program, Hair said, "Flexibility is limited by the expectations of our members. . The American people expect their natural resources to be utilized in an orderly and responsible manner. But sensitive and important ecosystems must not be the first to be developed—if ever, they must be the last.

"We believe that development must occur in a way that ensures long-term productivity, diversity of wildlife and protection of other natural as well as human resource values. Whether it's oil on the continental shelf, coal under our federal lands, or water impounded behind federal dams, the public has the right to expect that its assets will be managed in a business-like manner with due regard for our obligations to future Americans."

No longer, Hair said, can Americans "afford the luxury of going our own way without concern or respect for the fragile environmental health of this country and the world." □



As I write this, it's autumn: I can tell because the trees are losing their leaves and because all those catalogs full of things that I can't live without are arriving—just in time for Christmas shopping! There are all kinds of catalogs from furniture to food, but my favorites are those chock full of outdoor gear and clothing—the kind of things you've always wanted but were never able to find in town. The amazing part is that I'm still alive. It's a wonder, since I always find at least a hundred things that I just can't live without. Of the stack that arrives every year, these are my favorites.

Orvis (Manchester, Vermont 05254). Known for years and years for their fine handcrafted bamboo fly rods, Orvis has not forgotten their original product and this year offers about 17 models to choose from. Rods like this are really a class act and the price tag of three to five hundred dollars has you fishing in the high rent district. On the other hand, they offer the nicest fishing sweater I've seen in a long

time—100 percent wool for only \$54.50. Want something different under the Christmas tree? Try a dog nest. Actually, let your dog try one. They come in four sizes to fit almost any pooch and are practically guaranteed to keep Rover off the sofa. This catalog goes on for 50 pages, but it was the first page that got to me: custom side lock side-by-side shotguns in a variety of gauges and types of engraving-now you know what I

want for Christmas.

The Nature Comvany (Box 7137, Berkely, California 94707). "Products which enhance and encourage the observation and understanding of the natural world," is what the Nature Company offers. From a telescope for long distance viewing of birds to delicately hand-enameled hummingbird earrings, the products in this catalog are enchanting, to say the least. I am particularly fond of a print from this catalog. It's a rendering of California sea otters by artist Morton Solberg. In addition to being a great print, part of the \$145.00 sale price goes to help the sea otter, a beastie that always seems to be in trouble. For stocking stuffers, I like the plastic rain gauge for \$9.95 or the miniature duck and goose decoys at \$23.00 each.

Land's End (Land's End Lane, Dodgeville, WI 53533). Land's End begins their catalog with rather a nautical theme, so, if brass lamps and ship's barometers are to your liking, this may be the book for you. It's also a catalog you will want if keeping warm this winter interests you. Plenty of good coats and jackets for outdoor action this winter along with a pile of the best looking sweaters I've seen anywhere. Also, this is the only catalog I've seen this year offering an improved boomerang!

L.L. Bean, Inc. (Freeport, ME 04033). And then there's Bean. I believe "L.L. takes a fiendish delight in sending me this catalog—surely he knows that I want everything he has to offer. Nevertheless, this catalog is almost as much fun as going to Bean's elaborately stocked store in Freeport. If it's outdoor gear, particularly clothing, you can find it here. As a friend once said, if it's not in Bean's catalog, you don't need it.

Eddie Bauer (Eddie Bauer, Box 3787, Seattle Washington 98124). Down, that's the word here. This book offers some of the finest down-filled clothing to be found anywhere. Also included are down (and expensive) sleeping bags for serious outdoorsmen along with a varity of other outdoor clothing. Only the very top quality here . .

One new book this month, All About Varmint Hunting by Nick Sisley (The Stone Wall Press, 1241 30th Street NW, Washington, D.C. 20007) will be valuable to hunters wishing to improve their sport. Though generally limited to woodchuck hunting in this area, varmint hunting provides sporting opportunities and often at a time when little other hunting is available. Sisley's suggestions for guns and cartridges parallel my thinking, as do most of the hunting methods outlined in the book's 182 pages. The book is available by mail from Stackpole Books, Cameron and Kelker Sts. Harrisburg, PA 17105. Price is \$8.95 plus 86¢ postage.

Another View

Recently (October and November) the Sierra Club published a series of five "Natural Heritage Reports." These studies, according to the club "were undertaken to help focus public attention on specific failings of the [Reagan] administration's environmental policies and programs." These reports are a clear shot at the federal government and its current thinking and efforts on a variety of subjects from coal to crops.

The five reports are available for \$3.00 each from the Sierra Club, 530 Bush St., San Francisco, CA 94108. We offer this information, not as an endorsement of the Sierra Club's views on the subjects, but as a source of information on another view of the nation's

conservation efforts. □



rancis N Satterlee

Ground Breaking

Senator John Warner and Fifth District Commissioner Allan Hoffman were among those present at the recent ground-breaking ceremony for Briery Creek Lake. The 812-acre lake will be under construction throughout 1983 and 1984.

The new lake is part of Briery Creek Wildlife Management Area in Prince

Edward County. The 2,775 acre management area is currently closed to hunting. When the area opens after construction of the lake, waterfowl hunting is expected in addition to deer, turkey, dove and quail hunting which the area has provided in the past. The new lake, the Commission's largest, is expected to be stocked with warm water fish sometime during 1984. \square

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The Dark-Eyed Junco

Peeding birds has become a popular winter activity for birdwatchers from novice to expert. No one, it seems, tires of watching little feathered dynamos as they flit about consuming seeds at a prodigious rate. A feeder in winter may attract a surprising array of feathered creatures, depending on where it is located. However, it seems that no matter where it might be situated sooner or later, it will be visited by at least a small flock of juncos, one of the most common of Virginia's winter bird residents.

It was formerly known officially as the slate-colored junco, but a few years ago its official name was changed to "dark-eyed junco." I don't know why, because all species of juncos have dark eyes! Among its other names are black snowbird, gray snowbird or simply snowbird. I now favor "snowbird," a name that has been used by "common folk" for probably a century simply because juncos were most noticeable with and in the snow.

The junco is actually a sparrow and a member of a bird family dubbed Fringilladae by the scientific community. This family includes grosbeaks, buntings and finches, a "tribe" with conical-shaped bills which are perfectly designed for seed-eating. The junco's name is in fact derived from the Latin word wires meaning seed, and alludes to the junco's diet which consists almost exclusively of small seeds.

The junco is about six inches long. It is slate-gray with a darker head and white belly. Its outer tail feathers flash white when it flies—one of its best

by Carl "Spike" Knuth



identitying marks—and its bill is noticeably pink. Females and first year young are a little duller-almost brownish. Early in spring, or often before winter is over, the junco moves north to its breeding grounds, which cover most of Canada and all of Alaska and the mountainous areas of the eastern United States from New England to northern Georgia. They nest mainly in northern spruce and fir forests and adjacent clearings where they are attracted to cutover areas containing slash piles, the edges of old roads and the brushy edges of forest openings. Here the little female builds a wellhidden nest constructed of grasses and mosses, usually near the ground. Sometimes the nest is built in the root system of an upturned tree or on the side of a brushy, over-hanging bank. I

recall finding a nesting junco in an old brush pile along a sandy trail. It was built deep in a pile of spruce branches and it seemed as if the little female had to be part mouse to get through the maze of branches to its nest. The female lays about four to six bluish, greenish or grayish eggs, spotted with brown. As they do for the young of most song birds, insects make up a good part of the junco's diet. As they grow, they also eat small fruits and seeds.

Juncos and their young remain in their breeding ranges until severe weather or food scarcity forces them south. They seem to be reluctant to move south and will only go as far as they have to in order to find sufficient food and shelter. Major migratory flights move into Virginia in early November, although many arrive on the breath of the first cold front of October. Ultimately, they filter into almost all of the continental United States to spend the winter.

Hunters walking the hedgerows, brushy, weedy, field edges and woodlands with brushy undergrowth are familiar with the little bird with quick, nervous flight, showing white-edged tails and uttering their "chinking" or "tsipping" call. A flock of juncos sweeping over a weed field on a windy December day sounds like distant wind chimes. Birdwatchers know the junco as a cheery little bird that is easily attracted to feeders in or around city and farm homes where it flashes and dodges in and around shrubs and trees.



DECEMBER 1982

The River Otter

Tho is this streamlined aquatic mammal with the webbed feet? With its prominent whiskers, small ears and eyes, and heavy, tapered tail, the river otter (Lutra canadensis) is an intriguing and distinctive member of the weasel family. While the feet and tail are obvious characteristics of its aquatic nature, there are other indications that the otter is a model of adaptation to its environment: The ears and nose close when the animal goes under water. The eyes are positioned near the top of the head to allow it to see as it swims. And the otter is well insulated by its dense, oily fur and heavy layer of fat under the skin, so that it can swim in water of varying temperatures.

Year 'round, both male and female otters range from brown to black on their upperparts. Underneath, they are pale brown or gray; the muzzle and

throat are silvery.

Males are larger than females. Overall lengths range from 35 to 55 inches and weights run from 10 to 13 pounds (although weights of up to 50 pounds are on record).

Most of the otters in Virginia are in the eastern third of the state along tributaries of major rivers, such as the James and York Rivers.

River otters are found in a variety of habitats ranging from swamps and marshes to lakes and streams. They prefer streams, rivers and marshes of high water quality bordered by forests and located away from highly populated areas. An otter's home consists of a burrow in a bank, under the roots of large trees, beneath rocky ledges, under fallen trees or even in thickets of vegetation; the common denominator is water. Otters do not dig the burrow themselves but use abandoned dens of muskrat, beaver, or woodchucks. Dens on the water's edge have an opening above water in summer, but in winter this is closed and the only entrance is below water.

Although otters are chiefly nocturnal, they are sometimes out during the day. They are active all year, not bothered by changes in temperature or weather.

Otters, while awkward and slow on land, are graceful and powerful swimmers. They may swim with just their heads and shoulders above water or

This furbearing mammal is a playful creature and an impressive swimmer.

by Karen Anderson



completely under water or in a combination of these patterns. They are expert divers, as well.

Otters have been found at depths of up to 60 feet off the coast of Alaska. They can remain submerged for four minutes and can swim a quarter mile

under open water or ice.

Along the shore, otters have regular "pulling out" places. After emerging from the water, they dry themselves by shaking vigorously and sometimes by rolling in the snow, grass or leaves. They will also take dust baths and occasionally wallow in mud. The otter will scent mark by means of a gland located at the base of its tail, as well as leave droppings near these "pulling out" places.

On land, otters travel with a loping

gait, but on snow or ice they alternate this with a series of slides. After a few steps forward, they slide on their bellies for 10 to 20 feet while holding their feet backward. In this fashion, otters can cover 15 to 18 miles in an hour.

Otters have an entertaining habit of sliding down steep slopes. During the summer, a group of them wet a mud bank with their soaking fur and slide again and again until the bank is slick enough for them to attain great speeds. In the winter, these slides are made on snow or ice and terminate in a snow drift or a deep pool of water. This is probably a social sport for them: otters seem to enjoy each other's company in this activity. These animals are friendly and sociable for most of the year, except during breeding season when the males will

fight.

Otters probably breed in winter or early spring (February or March). Pregnancy lasts nine to 12 months because of delayed implantation, a process in which the developing pups remain loose and unattached in the uterus before finally implanting and resuming development. Single litters generally consist of 2 to 4 pups, born sometime between December and April. The young are born blind, toothless and are dark brown. They do not come out of the den until they are 10 to 12 weeks old; they are weaned at about four months. The female takes the major role in caring for the young but the male will help after the young leave the nest. The pups are introduced to water at 14 weeks but must be coaxed to swim. They stay with their parents through the first winter and leave in the spring. They breed at two years of age.

As with so many wildlife species, habitat loss is the otter's greatest enemy. Lowered quality of streams and loss of habitat to development has caused the decline of otter populations in many states. Although otters are trapped for their fur, proper trapping regulations prevent this from being a serious threat.

If you want to get a look at these fascinating and good-natured animals, find their "pulling out" places, slides or rolling spots along lakes, ponds or streams of fair width. Don't visit too often, however, because this may cause the otters to vacate that section of a stream or marsh. 🗆

Index To Virginia Wildlife 1982, Volume XLIII, Numbers 1-12

BIOGRAPHY	LOCALES
Personalities, Satterlee:	The Scenic Route (Hog Island WMA), Knuth
Lloyd H. Byrd, Aug., p. 21; Ralph Cash, Nov., p. 23; Glenn R. Crowshaw, Oct., p. 24; Forest Hanks, June, p. 21; L. Donald Hinchey, July, p. 24; B.U. Miller, May, p. 23; John	Tinker Creek Makes a Comeback,* Heslep
E. Moran, First Non-Game Wildlife Donor, Feb., p. 24; David Ramsey, Warden of the Year, Dec., p. 23	Adaptable Cat,* Bartenstein Feb., p. 23
BIRDS	Bambi Revisited, Slaughter May, p. 17
Bird of the Month, Knuth:	Delmarva Fox Squirrel, * Gilley Dec., p. 24 Flying Squirrel, * Villarejo Nov., p. 24
Belted Kingfisher, Aug., p. 34; Dark-Eved Junco, Dec., p. 32; Eastern Meadowlark.	River Otter, Anderson Dec., p. 34
March, p. 34; Long-Billed Marsh Wren, July, p. 34; Redhead, Nov., p. 34; Sanderling, May, p. 34; Shoveler, Oct., p. 34; Tree Swallow, June, p. 34; Whistling Wings: The	Springtime for Deer,* Bartenstein May, p. 24 Unpopular 'Possum, Villarejo Feb., p. 4
Goldeneye, Feb., p. 35	Whitetail in Virginia, Crable
Bird First Aid, Linzey	MISCELLANEOUS
Mallards Versus Blacks: A Storm in the East, Alison	Are You Hooked? deHarte
Taylor March, p. 32	The Discount Factor, Dickey April, p. 21
ECOLOGY AND NATURAL HISTORY	Dreamin' of a White Christmas, Cooley, Foster & Foster Dec., p. 16 Fungi: Another Kingdom, Price Aug., p. 16
Brookies Versus Nature, La Roche Dec., p. 8	Help Me Be a Good Hunter, Winegar Sept., p. 2a
Groundwater Connection, Zagar	In a Class By Itself: The Horseshoe Crab, Weekes July, p. 14 Lucky Seven, Bays March, p. 25
Washing Away the Resource, Grimes Dec., p. 6	The Man in the Sign Shop, * Bartenstein
FISHING	Muffy Goes Clamming, Bartenstein July, p. 9 My Kingdom for a Warehouse, Dickey Feb., p. 22
Add Weight to Your Stringers, McHugh & Randolph	A Passing Craft, Belton
Citation-Producing Waters in Virginia, Randolph April, p. 2c Dam Good Fishing, Gooch Oct., p. 16	The Ponies of Assateague, Slaughter
Gettin' the Blues, Slaughter July, p. 5	Belton & Murray March, p. 16
It All Comes Down to the Hook, Randolph April, p. 2a I Fish Jennings Creek, Mullen March, p. 7	Zooplankton, Kelso & Helfrich
In Search of Lake Burke Muskie, Donald June, p. 4 Lake Anna Stripers, Elkins June, p. 10	Chesapeake: The Bay Through the Eyes of John Barber,
The Musky Hunter, Knuth Aug., p. 10	Bartenstein
The Musky in Virginia, Steinkoenig	Freshwater Favorites, Raver
Renaissance of an Old Lure, Elkins	Sweet Land O'Goshen, Badger Aug., p. 13
Take a Kid Fishing, * Bartenstein June, p. 22 A Tale of Two Openings, York April, p.2d	Watercolors of Ed Hatch, Bartenstein
Throw a Net, Shank April, p. 15	PLANTS
Trout Tamers, Eastby April, p. 26 Trout, Trillium and Morels, Belton April, p. 3	Bringing Back the American Chestnut, Artman
The Unpredictable Pickerel, Ingram April, p. 24	Christmas Trees,* Bartenstein
Versatility Fills Your Stringer, Martin	Grapes of Fall: Muscadines, Hammack Nov., p. 11 Milkweed, Decker June, p. 32
From Creel to Platter, Cone	Mistletoe: The Mythical Kissing Plant, Randolph Dec., p. 12 Pumpkin Time, * Artes Oct., p. 22
New Homes for Wildlife,* Wirt June, p. 23	Trees,* Bartenstein Aug., p. 22
A Perfect Combination, Cone Sept., p. 25 Preserving Your Catch, Traister April, p. 34a	Trees of the Swamp, Weekes July, p. 6 Vagabonds of the Plant World, Murray Feb., p. 8
The Tacklebox Dilemma, Almy	RECREATION
HUNTING AND TRAPPING	Down a Wintry Trail, Reeder Feb., p. 10
After the Shot, Benedetti Sept., p. 21	Floating a Classic: The South Fork of the Shenandoah,
At the Fork of the Creeks, Gooch Sept., p.9 Big, Big Game, Gooch May, p. 4	Heerwald June, p. 25 Follow an Icy Hollow, Belton & Tucker Dec., p. 26
Falling For Turkeys, Vance Sept., p. 13 The Forgotten Cylinder Bore, Del Savio June, p. 14	The James: Between the Ferrries, Belton April, p. 9 No Closed Season, Reeder Sept., p. 28
Game Law Summary Oct., p. 32	The Shenandoah: A Virginia Tradition, Heerwald
Hunting Outlook Sept., p. 34b In Pursuit of the Wild Goose, Badger Sept., p. 16	Suburban Parks: Nature at Your Doorstep, Daniels June, p. 8 Take Me Along, Shank
Last Day of the Season, Shepherd	Touring the South Anna, Ryan March, p. 9
Memories of a Waterfowl Season, Almy	York River State Park, Nimmo
My Hunting Tradition, Del Savio	
On Fall Turkey Hunting, Curtis Nov., p. 26 The Outhouse Gobbler, O'Hare Sept., p. 2a	Canebrake Ratilesnake, Bonavita
Prospecting For Fur, Shumaker Nov., p. 14 A Roar of Wings, Almy Sept., p. 3	Snake Lore: Fact or Fiction, Mitchell
Sadder But Wiser, Hart Sept., p. 4	WILDLIFE MANAGEMENT
Taking Wing, Ausband Dec., p. 4 Tidewater Trapping Tales, Bland Feb., p. 13	Blueprint for Wildlife Management, Cross Jan., p. 4 The Education Division
A Traditional Education, Randolph Sept., p. 33	The Fish Division Jan., p. 21
Virginia Highways Claim Deer, Gooch Sept., p. 34 You Can't Buy Success, Benedetti Oct., p. 4	Fishery Research, the Cooperative Way, Pardue June, p. 18 The Game Division Jan., p. 7
LAW ENFORCEMENT AND SAFETY	The Lands and Engineering Division Jan., p. 17
Awareness, Ethics and Safety, Hensley	The Law Enforcement Division Jan., p. 28 Lead Shot: Another Victim? Kendall June, p. 6
Do You Brake for Wildlife?* Miller Dec., p. 21 Dove Baiting and the Law, * Perry Oct., p. 23	A New Era in Fish and Game Management, Randolph Jan., p. 5 The Non-Game Program, Bartenstein Jan., p. 15
A Game Warden's First Year,* Shannon July, p. 23	The Oak Mast Study, Coggin Aug., p. 32
Game Warden "Outfoxes" Violator, * Foster	The Slot for Crappie, Randolph
A Matter of Survival, Slaughter Dec., p. 14	
"Spotlight" on Sportsman Assistance,* Chitwood	*denotes departmental entry
Undercover Wildlife Agent: The Early Years, Phillips Feb., p. 25 The Well-Equipped Game Warden,* Miller Aug., p. 23	
Aug., p. 23	

The holly and the ivy
When they are both full grown
Of all the trees that are in the wood
The holly bears the crown.

Traditional Christmas Carol

Seasons Greetings from Virginia Wildlife

